



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,498	08/30/2000	JOHN T. DEVLIN	MIO-0071-PA	1401

7590

02/13/2003

KILLWORTH GOTTMAN HAGAN & SCHAEFF L L P
ONE DAYTON CENTRE
SUITE 500
DAYTON, OH 45402-2023

EXAMINER

KACKAR, RAM N

ART UNIT

PAPER NUMBER

1763

DATE MAILED: 02/13/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/651,498

Applicant(s)

DEVLIN ET AL.09651498

Examiner

Ram N Kackar

Art Unit

1763

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 07 February 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. **ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).**

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached sheets.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: _____.

Claim(s) withdrawn from consideration: _____.

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____

Response to Amendment

1. Applicant's arguments filed after final 02/07/2003 have been fully considered but they are not persuasive. Applicants arguments and Examiners response follow:

Applicant: Banan fails to teach a fluid conduit defining a substantially cylindrical heat regulation void to accommodate an object subject to heat regulation

Examiner: The jacket provides a channel (conduit) where water enters and exits and encloses (cylindrical) a void where an object (crucible) subject to heat regulation resides and gas flow path exists between rotary spindle and fluid conduit.

Applicant: Kimura does not show a passage extending through flange from an upper surface to a lower surface.

Examiner: Kimura does show a passage extending through the flange where the spindle 31a passes through the flange (Fig 2) and (Fig 2-20).

Applicant: Kimura does not teach a water jacket.

Examiner: The flange shown in Kimura has an inlet, an outlet and passage for fluid flow (Fig 2- 31b). This is therefore a water jacket.

Applicant: Kimura does not show or teach a temperature sensor positioned in thermal communication with a flange body proximate to the passage.

Examiner: Kimura shows a logical connection to the flange and to fluid recirculator. The logical connection to flange could be only an input from the flange, which would inherently be a temperature signal. Kimura clearly says that the objective is to control the temperature of the flange to a certain value

Art Unit: 1763


(Col 5 lines 25-29). Having a temperature sensor at the recirculator will not be able to control temperature at flange or spin chuck because of temperature gradient.

Applicant: Replacing the air conduit 30 of Sugimoto with a water jacket would destroy the operability of the spin coating system because underside of the substrate would be subject to undesirable contamination.

Examiner: Examiner did not suggest replacing air conduit 30 with a water jacket. Examiner only suggested a water jacket like disclosed by Kimura around gas flow enclosure 30 would simplify temperature control. The water jacket does not cause mist and particles. The mist and particles created by photo resist are handled by exhaust zone 10 and exhaust vent 11. Also, nowhere in the office action Sugimoto, Kimura and Banan are all combined.

Applicant: There is no motivation to combine the temperature sensor of Hayes with the flange of Kimura and the heat exchanger may rotate or be movable.

Examiner: Firstly the examiner has not relied upon the embodiment where the heat exchanger rotated. Secondly the motivation to combine the two references comes from their teachings. It is not necessary that they should be completely mechanically compatible to each other.


BENJAMIN L. UTECH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700